

Amended Claims With Mark-ups to Show Changes Made

1. (Amended) A switching system which includes a plurality of devices formed in a dual active structure, a device controller for controlling the devices, and a main processor, a path management and testing method for a switching system, comprising:

[a step, in which] using the device controller to check[s] a valid path and state change for each board, for forming a database using [a] the main processor;

[a step for] searching the database and confirming a standby path; and

[a step for] performing a path test for the entire interval or a certain interval with respect to the active or standby path.

A1

2. (Amended) The method of claim 1, wherein said [step for] forming a path state database for each board includes:

[a step in which] using the device controller to read[s] a valid path for each board to a device at an initial state stage and [informs a] inform the main processor of the read path;

[a step in which] using the main processor to form[s] a database using the read path;

[a step for] checking a device-based state change at a certain period; and

[a step for] editing the database based on the state change.

B1

3. (Amended) The method of claim 1, wherein [in said step for] when checking the active path, in which an active path to the matched last receiving board is checked by the receiving side terminal, and the active path is checked in the reverse direction of the data transmission direction, and the entire active paths are searched by checking the switching path of the boards connected with the active path.

Al Cont
4. (Amended) The method of claim 1, wherein in said standby path setting [step], in the case that a certain path is set as an active path which is different from the current path by checking the valid path for each board with respect to the standby path which is set as the reverse path of the active path, the set path is changed.

5. (Amended) The method of claim 1, wherein said path test [step] includes:
[a step for] receiving a parameter value used for a path test;
[a step for] forming a test path based on the parameter value;
[a step for] inserting a test pattern data into an input side device;
[a step for] extracting a test pattern data from an output side device; and
[a step for] judging an error with respect to the test path interval by comparing an input data and an extraction data.

AI Cont
6. (Amended) The method of claim 5, further comprising [a step for] setting [the] a number of repetitions and setting a period for thereby repeatedly performing the test.

7. (Amended) The method of claim 5, further comprising [a step for] performing an interval-based path test when the input data and the extracted data are different and searching an error interval.

11. (Amended) In a switching system of a dual active structure, a standby path test method, comprising:

[a step for] checking an active path formed in a direction of a matched last receiving board at a receiving side terminal, checking an active path in the reverse direction of a data transmission direction, and searching an entire active path by checking a switching path of the board connected to the active path;

AG
[a step for] setting a reverse path of the active path as a standby path; and

[a step for] performing a path test with respect to the set standby path.

12. (Amended) The method of claim 11, wherein said path test [step] includes:

[a step for] receiving a certain parameter value needed for a path test:

[a step for] forming a switching path based on the set standby path;

[a step for] inserting a test pattern data into the input side device;

[a step for] extracting a test pattern data into the input side device;

[a step for] judging whether there is an error in the standby path based on a comparison result with respect to the input data and the extraction data; and

[a step for] searching an error interval by performing an inter-based path test in the case that the input data and the extracted data are not same.

13. (Amended) The method of claim 12, further comprising [a step for]
repeatedly performing a test by setting [the] a number of repetitions and period.

Clean Set of Amended Claims

1. (Amended) A switching system which includes a plurality of devices formed in a dual active structure, a device controller for controlling the devices, and a main processor, a path management and testing method for a switching system, comprising:

using the device controller to check a valid path and state change for each board, for forming a database using the main processor;

searching the database and confirming a standby path; and

performing a path test for the entire interval or a certain interval with respect to the active or standby path.

2. (Amended) The method of claim 1, wherein said forming a path state database for each board includes:

using the device controller to read a valid path for each board to a device at an initial state stage and inform the main processor of the read path;

using the main processor to form a database using the read path;

checking a device-based state change at a certain period; and

editing the database based on the state change.

3. (Amended) The method of claim 1, wherein when checking the active path, in which an active path to the matched last receiving board is checked by the receiving side terminal, and the active path is checked in the reverse direction of the data transmission direction, and the entire active paths are searched by checking the switching path of the boards connected with the active path.

4. (Amended) The method of claim 1, wherein in said standby path setting, in the case that a certain path is set as an active path which is different from the current path by checking the valid path for each board with respect to the standby path which is set as the reverse path of the active path, the set path is changed.

5. (Amended) The method of claim 1, wherein said path test includes:

- receiving a parameter value used for a path test;
- forming a test path based on the parameter value;
- inserting a test pattern data into an input side device;
- extracting a test pattern data from an output side device; and
- judging an error with respect to the test path interval by comparing an input data and an extraction data.

6. (Amended) The method of claim 5, further comprising setting a number of repetitions and setting a period for thereby repeatedly performing the test.

7. (Amended) The method of claim 5, further comprising performing an interval-based path test when the input data and the extracted data are different and searching an error interval.

11. (Amended) In a switching system of a dual active structure, a standby path test method, comprising:

checking an active path formed in a direction of a matched last receiving board at a receiving side terminal, checking an active path in the reverse direction of a data transmission direction, and searching an entire active path by checking a switching path of the board connected to the active path;

setting a reverse path of the active path as a standby path; and
performing a path test with respect to the set standby path.

12. (Amended) The method of claim 11, wherein said path test includes:

receiving a certain parameter value needed for a path test;
forming a switching path based on the set standby path;
inserting a test pattern data into the input side device;

extracting a test pattern data into the input side device;

judging whether there is an error in the standby path based on a comparison result with respect to the input data and the extraction data; and

searching an error interval by performing an inter-based path test in the case that the input data and the extracted data are not same.

13. (Amended) The method of claim 12, further comprising repeatedly performing a test by setting a number of repetitions and period.

B. Please add new claims 16-20 as follows:

16. (New) A path management and testing method for a switching system,
comprising:
checking a valid path and state change for components within the switching
system;
searching for and confirming a standby path within the switching system; and
performing a path test for the entire interval or a certain interval with respect
to the active or standby path.

17. (New) The method of claim 16, wherein the valid path and state change for
each component is stored in a database.

18. (New) The method of claim 16, further comprising repeatedly performing a
test by setting a number of repetitions and periods.

19. (New) A path management and testing method for a switching system,
comprising:
checking an active path formed in a direction of a matched last receiving
device at a receiving location;

checking an active path formed in a direction of a matched last receiving device at a receiving location;

checking an active path in the reverse direction of a data transmission direction; and

searching an entire active path by checking a switching path of the device connected to the active path.

20. (New) The method of claim 16, further comprising repeatedly performing a test by setting a number of repetitions and period.
